

Drug Intelligence Brief



DRUG ENFORCEMENT ADMINISTRATION
INTELLIGENCE DIVISION

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HEROIN SIGNATURE PROGRAM: 2000

Since 1977, through the Intelligence Division's Heroin Signature Program (HSP), DEA's Special Testing and Research Laboratory has conducted annual in-depth chemical analyses of between 600 and 900 heroin samples. These samples come from seizures and purchases made in the United States. The analyses determine the samples' source area, because the production process in each of the world's heroin producing regions—South America (primarily Colombia), Mexico, Southeast Asia (primarily Burma), and Southwest Asia (primarily Afghanistan)—has a unique "signature." The source area for approximately 90 to 95 percent of the samples analyzed can be identified each year. Chemical analysis also generates data on the purity of wholesale quantities of heroin.

In 2000, not only did South American heroin have the highest average purity of all source areas, but the majority of the heroin analyzed by weight, 59 percent, was also from South America. This area has accounted for the majority of the heroin analyzed under the HSP for the last 6 years.



Colombian opium poppy

HEROIN SIGNATURE PROGRAM DATA: 2000

Heroin Source Area	Annual Percentage	Weight kilograms	Purity percent
South America	59	346.4	79
Mexico	17	99.9	36
Southwest Asia	16	98.1	77
Southeast Asia	8	45.6	72

Signature analysis is the only scientifically based source of information currently available on the origins of heroin encountered in the U.S. drug market. HSP data are reported annually and provide the basis of percentages for both the number of seizures from each source area, as well as the net weight of heroin seized from each area. The program is continually validated by associating authentic source country samples with the results of chemical analysis.

Fluctuations from year to year in the proportion from each source area may reflect shifting law enforcement priorities; changes in trafficking patterns; or exceptionally large seizures that may boost a source area's representation in the HSP. To achieve a comprehensive assessment of heroin importation and trafficking in the United States, HSP data must be merged with investigative intelligence, drug production estimates, and seizure statistics.

HEROIN SIGNATURE PROGRAM

Geographic Source Area Distribution (in percent*)

Based on Net Weight of Heroin Seized

Year	Mexico	Southeast Asia	Southwest Asia	South America
1977	89	9	2	**
1978	82	15	3	**
1979	48	13	39	**
1980	38	11	51	**
1981	36	10	54	**
1982	34	14	52	**
1983	33	19	48	**
1984	32	17	51	**
1985	39	14	47	**
1986	42	22	36	**
1987	42	25	33	**
1988	29	46	25	**
1989	27	56	17	**
1990	21	56	23	**
1991	21	58	21	**
1992	10	58	32	**
1993	8	68	9	15
1994	5	57	6	32
1995	5	17	16	62
1996	20	8	20	52
1997	14	5	6	75
1998	17	14	4	65
1999	24	10	6	60
2000	17	8	16	59

* Percentages are based on weight of samples for which a signature was identified. In 2000, 90 percent of samples were classified.

** Since the signature for heroin from South America was developed in July 1993, the 1993 figure represents only partial-year data.

■ Highlighted numbers represent the majority of the heroin analyzed by weight for a given year.

Smuggling Patterns in 2000

Much of the South American heroin seized was transported by couriers who had ingested between 500 and 1,000 grams of heroin in pellet form. Their itineraries frequently included transiting through Ecuador, Panama, Guatemala, Aruba, and Venezuela.

Often, Mexican heroin couriers attempted to enter the United States at California's San Ysidro border crossing with 1- to 3-kilogram amounts of heroin concealed in vehicles. Despite a long-standing tradition of smuggling small quantities of heroin, there were 4 seizures in 2000 that ranged from 10 to 23 kilograms. In two other instances, authorities confiscated heroin in 42 and 46 kilogram quantities, respectively. This shift in trafficking methods continued in 2001 with three seizures in the mid-20 kilogram range; one that totaled 42 kilograms; and yet another seizure in the San Francisco Bay area city of Newark that totaled 74 kilograms.



Retail forms of heroin

Nationals of West African countries, whose travel often originated in Africa and ended at JFK International Airport in New York, brought most of the Southwest Asian (SWA) heroin analyzed into this country. Although swallowing pellets of heroin was a common smuggling method, one shipment, concealed in luggage, totaled 23 kilograms. However, a small portion of this shipment was Southeast Asian (SEA) heroin. Another courier, who flew from Nigeria, was arrested at JFK with 17 kilograms of SEA heroin. For a number of years, West Africans have trafficked in both SWA and SEA heroin.

This report was prepared by the DEA Intelligence Division, Domestic Strategic Unit. This report reflects information received prior to July 1, 2002. Comments and requests for copies are welcome and may be faxed to the Intelligence Production Unit, Intelligence Division, DEA Headquarters, at (202) 307-8726.